U.S. Department of Agriculture
RECEIVED
MAY 16 1894
DIVISION OF BOTANY.

List of collection from Duval Co. Fla.

In order fully to understand the habits as given in this list, a few words on the topography of the territory covered by the collection may not be out of place. - It is situated in Duval Co. and along the eastern shore of St. Johns river from South Jacksonville south about six (6) miles and from the river east about three (3) miles. The river and its tributaries are here under tidal influences. - The geological conditions are the same throughout the entire territory, the soil being fine sand here and there; where conditions are favorable for a heavier growth, covered by from 2 - 16 inches of decayed and decaying vegetable matter. The highest elevation is to be found along the river, which is bordered by a bluff 8 - 20 feet high, with the exception of the immediate vicinity of South Jacksonville where a swamp of considerable size and covered with a coarse vegetation reaches down to the river. Between the bluff and the river channel is a marsh - "river-marsh" - 10 - 50 yards wide, at the shore end of which Taxodium distichum, Liquidambar styraciflua, Salix nigra and Cephalanthus occidentalis abound, further out it is covered by a high cyperaceous growth. The bluff itself, where not under cultivation is densely beset by Quercus aquatica, Magnolia grandiflora, Carya pecina, Gordonia Lasianthus and Ilex opaca with an undergrowth of Prunus umbellata, Ilex ambigua, Ptelea trifoliata, Ostrya Virginica, Cornus florida, Hamamelis Virginiana etc. the whole closely interwoven with Bignonia capreolata, Gelsemium sempervirens and different species of Smilax, Vitis and Rhus forming thickets, which can only be penetrated by the aid of ax and knife. The trees, here as elsewhere in the vicinity of water, are festooned by Tillandsia usneoides. The

designation "thickets" refer to these localities. The rise of the bluffs from the river is almost perpendicular, but on the other side it has a gentle and uniform slope of about 2 feet for 1/2 mile. These belts are known as "hummock-lands" or "hummocks" the vegetation of them being essentially the same as that of the bluffs with the exception of a lesser undergrowth and Quercus virens in some degree taking the place of Quercus aquatica. Beyond the hummocks on a level which averages 10 feet above the river surface lie extensive pine-woods known as "pine-barrens". These are airy and sparingly beset with Pinus australis; among the grasses frequenting the barrens Sporobulus junceus and Andropogon Elliottii var. gracilis are the most conspicuous. The line of demarcation between these two large divisions is however not always very distinct, but broken by a more or less wide belt with a flora entirely its own; the trees which mark it are Quercus virens (sparingly and near the hummock) Quercus nigra, Quercus Nibba, Pinus Tæda and Pinus australis (sparingly and near the barrens) and a scant undergrowth of Asimina grandiflora, Leucothus Americanus, etc. - These spaces which I have designated "oak-woods" present together with the swamps and damp barrens the richest fields for the collector. The "damp pine-barrens are merely slight depressions in which rainwater collects and remains for a few days. They are generaly surrounded by a dense growth of Sabal serrulata and abound in the smaller cyperaceous species. - The eastern border of the territory, which I have covered, is taken upp by a large swamp extending in a line parallel with the river and 1-2 feet lower than the pine-barrens.

It is surrounded by Pinus serotina and dense clusters of Sabal Serrulata and covered with Taxodium distichum and Liquid ambar Styraciflua. This is designated as "swamps". From there head brooks which at frequent intervals cut through the pine-barrens, hummocks and bluffs successively on their way to the river. They are very sluggish and winding in their flow and often overgrown with Orontium aquaticum and various species of Nymphaea, Sagittaria, Lemna and Potamageton. They, like the river, have a marsh-border and are surrounded by a hummock which in these cases cover the slope from the barrens to the creeks, the bluffs being absent. The fields sometimes referred to are merely clearings mostly of hummocks or bluffs. They are the remains of the old indigo fields during the Spanish-grant times, having been kept clear for pasture purposes. They have by this time developed a flora of their own of which Andropogon Virginicus, Cassia Chamaecrista and Rubus trivialis are the typical representatives. The climate is not excessively hot and the humidity plentiful with the exception of the spring when generally is dry.

Period of flowering.

1. Argemone Mexicana. L.
W. 502 — Waste grounds & Streets — March – June.

2. Lepidium Virginicum. L.
W. 26 — Cultivated grounds (Groves, gardens etc.) — March – May.

3. Alyssum maritimum. Lam.
W. 366 — Fields and cultivated grounds around dwellings. Escaped but very hardy. — Oct – Apr.

4. Viola cucullata. Ait. var. palmata. Wood.
W. H25 — Damp pine barrens — Jan – Febr.

5. Viola primulaefolia. L.
W. H31 — Border of swamps. — Jan.

6. Viola lanceolata. L.
W. HH3 — Damp pine-barrens — Febr.

7. Hypericum Ten.-Andreae. L.
W. 289 — Oakwoods and hummocks. — May – Oct.

8. Hypericum mutilum. L.
W. 27 — In wet sand and moss around creeks and springs — Apr – July.

9. Hypericum Sarothra. Michx.
W. 219 — Oakwoods and roadsides — June – July

10. Elodea Virginica. Nutt.
W. 271 — Damp pine-barrens and swamps. — Aug – Oct.

Series of flowering.

11. Drosera brevifolia. Pl.
W. 486
Damp pine-barrens and border of swamps. March.

12. Stellaria media. Smith.
W. 473
Waste grounds, streets and gardens. Jan — May.

13 Malvastrum verticillata L.
W. 208
Cultivated grounds. June - Aug.

14 Sphaeralcea arvensis. L.
W. 119
Cultivated grounds. Apr - July

15 Sida rhombifolia. Cav.
W. 40
Waste and cultivated grounds. The whole year around.

16. Melia Azedarach. L.
W. 516
Around dwellings. Introduced but hardy. March - Apr.

17. Linum Virginianum. L.
W. 383
Pine-barrens. July - Oct.

18 Oxalis stricta. L.
W. 91
Fields and cultivated grounds. Feb - July

19 Oxalis violacea. L.
W. 428.
Cultivated grounds and thickets. Escaped and may prove hardy Dec - May.

20 Oxalis cernua. Wood.
W. 462
Around dwellings, not hardy Jan - March

21 Pelargonium graveolens. Wood.
W. 512
Around dwellings. Escaped not hardy March - July.

			Period of flowering.
22.	Stelea trifoliata. L. W. 59	Thickets and hummocks.	March - May.
23.	Rhus Toxicodendron. L. W. 503	Thickets.	March - Apr.
24.	Ceanothus Americanus. L. W. 186.	Oakwoods.	June - Oct.
25	Cassia obtusifolia. L. W. 377	Fields cultivated grounds, waste places and roadsides.	Aug - Oct.
26	Cassia Chamaecrista L. W. 262	Fields.	Aug - Oct.
27.	Stylosanthes elatior. Swartz. W. 168	Pine-barrens.	May - July
28	Arachis hypogaea. W. 327	Cultivated grounds. Escaped. Very hardy.	Aug - Sept.
29.	Desmodium strictum. W. 381	Pine-barrens and oakwoods.	Sept - Oct.
30	Amorpha fruticosa. W. 72	River-swamps.	Apr - May.
31.	Indigofera tinctoria. L. W. 120	Cultivated grounds, fields and waste places. Naturalized.	The whole year around.
32	Rhynchosia erecta. Wood. W. 112.	Oakwoods and pine-barrens.	Apr - June.

			Habitat	Period of flowering.
33.	Prunus umbellata. Ell.	W. H03	Thickets and hummocks.	Nov – Febr.
34.	Prunus serotina. Ehr.	W. H93	Hummocks, roadsides and fields.	March.
35	Rubus villosus. Ait.	W. H58	Borders of rivers, creeks and ditches.	Febr – Apr.
36	Hamamelis Virginiana. L.	W. H04	Hummocks.	Nov. – Dec.
37.	Liquidambar Styraciflua. L.	W. H69	Swamps and shores	Febr – March
38	Annarnia humilis. Nutt.	W. H26	River – swamps.	Oct – Dec.
39.	Oenothera biennis. L. var. minima. Woods.	W. 25	Cultivated grounds.	March – May.
40	Ludwigia virgata. Sh.	W. 239	Damp pine-barrens and along ditches.	May – June.
41	Citrullus vulgaris. Schrad.	W. 141	Fields and cultivated grounds. Frequently escaped.	May – Oct.
42.	Lamicula Canadensis. L.	W. 211	Oakwoods.	June – July.

			Period of flowering.
43.	Hydrocotyle repanda. Pers. W. 232	River shores, creeks and ditches.	June - July
44	Apium divaricatum. Wood. W. 1.	Cultivated grounds.	Febr - May.
45	Cornus florida. L. W. 463	Hummocks	Febr - March.
46	Lambucus Canadensis. L. W. 68	River-marsh.	Apr - May.
47.	Galium trifidum L. W. 184	Swamps.	May - Sept.
48	Gardenia florida Wood. W. 86	Around dwellings. Frequently escaped but not very hardy.	May - June
49.	Vernonia ovalifolia. T. & G. W. 198	Oakwoods.	May - July
50	Eupatorium sabinaeum Ell. W. 288	Pine barrens and oak. woods.	Sept - Oct.
51.	Eupatorium ageratoides. L. W. 401	Hummocks and thickets.	Oct - Dec.
52.	Elephantopus Carolinianus. Willd. W. 318	Along streams and ditches.	Sept - Oct.

			Period of flowering.
53.	Liatris spicata. Willd. W. 394.	Damp pine-barrens.	Sept - Nov.
54	Aster surculosus. Nuttall. W. 363	Oakwoods and hummocks.	Sept - Nov.
55.	Erigeron Canadense L. W. 189	Cultivated grounds and fields.	June - July.
56.	Erigeron strigosum. L. W. 171	Thickets	May - June
57	Verbesina sinuata. Ell. W. 326	Oakwoods, fields, cultivated grounds and waste places	Sept - Dec.
58	Ambrosia artemisicefolia. L. W. 299	Cultivated grounds.	Aug - Oct.
59.	Baccharis glomeruliflora. Pers. W. H13	Swamps.	Nov.
60.	Gnaphalium polycephalum. Nuttall. W. 340	Fields and Oakwoods.	Nov - Jan.
61	Helenium autumnale. Wood. W. H8H	Damp pine-barrens	March.
62	Rudbeckia hirta. L. W. 165	Oakwoods	The whole year.
63	Berlandiera tomentosa. T. & G. W. 96.	Pine-barrens.	March - Aug.
64	Erechtites hieraciifolius. Raf. W. 252	Oakwoods, thickets and pine-barrens	June - Nov.

				Period of flowering.
65	Chrysanthemum Leucue. L.	Wood.		
	Tw. 419	Field.	Escaped.	Nov – Dec.
66	Chrysanthemum Indicum. L.	Woods.		
	W. 417	Old building ground.		Dec.
67	Senecio lecandus.	Woods.		
	W. 438	Thickets and hummocks.		
		not uncommon. Probably escaped but very nearly		Jan – Febr.
68	Krigia Carolinicana. Nutt.			
	W. 6	Cultivated grounds, fields, thickets, hummocks, roadsides		
		Oakwoods and waste places.		March – May
69	Sonchus asper.	Vill.		
	W. 85	Waste places, roadsides and streets		May – July.
70	Specularia perfoliata.	Lam.		
	W. 21	Cultivated grounds and fields.		Apr – May.
71	Vaccinium corymbosum. L.			
	W. 8	Border of swamps and hummocks.		Jan – Febr.
72	Vaccinium Hamineum. L.			
	W. 65	Thickets, hummocks and oakwoods.		March – May

			Period of flowering
73	Andromeda racemosa. L. W. 505	Edge of swamps.	March – Apr
74.	Azalea nudiflora. L. W. 459	Edge of swamps and hummocks.	Febr - March.
75.	Prinos glaber. L. W. 97	Damp pine-barrens	March - May. Oct - Dec.
76	Utricularia inflata. Walt. W. 468	Swamps and creeks	Febr - March
77	Linaria Canadensis. Dumont. W. 3	Fields and cultivated grounds	Febr - May.
78	Dasystoma pectinata. W. 199	(Torr) Woods. Pine-barrens	June - Aug.
79	Lantana Sellowiana. W. 39	Thickets. May prove hardy	The whole year
80	Salvia lyrata. L. W. 478	Thickets. Hummocks and Oakwoods	Febr – March.
81	Monarda punctata. L. W. 267	Thickets. Hummocks and Oakwoods.	July – Oct.
82	Scutellaria integrifolia. L. W. 51	Swamps	Febr – June.
83	Lycopus tessilifolius var. rubens. Gray. W. 316	Swamps	July – Nov.

Period of flowering.

84. Phlox Drummondii. Stock.
W. 11
Cultivated grounds and fields. Fully naturalized and showy. Febr – May.

85 Phlox involucrata. Wood.
W. 50
Pine-barrens. Spr – May.

86. Ipomoea pinnata. Cav.
W. 215
Fields. May – Sept.

87. Calystegia sepium. Br. var. Catesbeiana. Wood.
This form has remarkably large leaves. W. 66
River-swamps. Spr.

88 Cuscuta compacta. Juss.
W. 305
Edges of rivers and creeks. Dec – Apr.

89. Solanum nigrum. L.
W. 205
Cultivated grounds and waste places. May – Nov.

90 Petunia nyctaginiflora. Wood.
W. 33
Cultivated grounds. Escaped but seems hardy. Apr – May.

91 Physalis Pennsylvanica. L.
W. 65
Fields and cultivated grounds. Apr – June

92 Sabbatia lanceolata. Walt.
W. 148
Damp pine-barrens. June.

93. Ludwigia pubescens. Ell.
W. 121
Edges of swamps. May – July.

			Period of flowering
94	Rumex verticillatus L. W. 213	River - marshes	June - July.
95	Rumex acetosella. L W. 10	Cultivated grounds and fields.	March - July
96	Polygonum acre. H. B. K. W. 411	River - marshes	May - Dec.
97.	Polygonum hydropiperoides. Michx. W. 91	River - marshes, swamps and damp places in general	Apr - Nov.
98	Polygonum Virginianum. L. W. 261	Thickets and hummocks.	Sept - Nov.
99.	Polygonum Convolvulus. L. W. 269	Fields and cultivated grounds. Waste places and thickets. Hummocks and Cabwoods	July - Nov.
100	Phytolacca decandra. L. W. 210	Thickets and waste places.	June - Sept.
101	Rivina laevis. L. W. 325	Cabwood at Point La Vista, Philips. On the bank of St. Johns river. Plentiful at this spot but not found elsewhere.	Sept - Dec.

			Period of flowering.
102	Chenopodium Botrys. L. W. 274	Fields, cultivated and waste grounds.	Aug – Nov.
103	Chenopodium album. L. W. 499	Waste places.	Nov – Apr.
104	Acnida cannabina Chapm. W. 300	River – low swamps.	Aug – Oct.
105	Amaranthus retroflexus. L. W. 227	Waste places	July – Sept.
106	Ricinus communis L. W. 308	Cultivated and waste grounds. Very hardy.	The whole year
107	Urtica chamaedroides. Ph. W. 492	Cultivated and waste grounds.	Febr – May.
108	Morus rubra. L. W. 451	Thickets	Jan – March.
109	Juglans cinerea. Willd. W. 284	Swamps and ditches.	May
110	Quercus triloba. Michx. W. 476	Oakwoods and pine-barens.	Febr – March.
111	Ostrya Virginica. Willd. W. 466	Hummocks and thickets	Febr.
112	Quercus Phellos. L. W. 457	Thickets	Febr. – March.

			Habitat.	Period of Flowering.
113	Gentiana aquaticum. L. W. 480		Creeks.	Jan – Apr.
114	Sagittaria variabilis. Eng. W. 386		River-marshes.	Aug – Nov.
115	Sagittaria lancifolia. L. W. 64		River-marshes.	Apr – Sept.
116.	Sagittaria graminea. Michx. W. 36		Sandy Pine-barrens, swamps and creeks, but never within reach of tide waters	The whole year.
117	Spiranthes brevifolia. Chapm. W. 63		Pine-barrens.	March – May.
118	Canna Indica. Wood. W. 83		River marshes along the St. Johns. Fairly hardy.	May.
119	Cypripedium Parviflorum. Var. Pubescens. Wood. W. 44		Pine-barrens.	March – June.
120	Smilax Walteri. Pk. W. 508		Thickets and Hummocks.	March.
121	Allium Triquetrum. Jacq. W. 481		Pine-barrens.	Febr – March.
122	Luziola angustifolia. Ell. W. 504		Swamps.	March.
123.	Pontederia cordata. L. W. 62		River-Swamps.	Apr – May.

			Period of flowering.
124.	Juncus tenuoides. Lam. W. 176	Damp pine-barrens.	March – July.
125	Commelyna Virginica. L. W. 80	Cultivated grounds.	May – Aug.
126.	Eriocaulon quadrangulare. Mich. W. 500	Swamps.	March.
127	Lachnocaulon Michauxii. K. W. 104	Damp pine-barrens.	The whole year.
128	Dulichium spathaceum. Pers. W. 158	Swamps.	June.
129	Cyperus Luzulae. Rottb. var. umbellatus Britt. W. 194	Damp pine-barrens.	June – July.
130	Cyperus microdontus. Torr. W. 192	Edges of swamps.	June.
131	Cyperus Frigoosus. L. var. compositus. Britt. W. 350	River-marshes.	July – Nov.
132	Trichelostylis stenophylla. Ell. W. 223	Fields and pine-barrens.	Apr – June.
133.	Eleocharis acicularis Br. W. 424	Swamps.	Aug – Febr.
134	Rhynchospora glomerata. Vahl. W. 228	Damp pine-barrens.	July – Aug.
135	Carex alata. Torr. W. 177	Oak-woods and Hummocks.	March – Apr.

			Period of flowering.
136.	Paspalum setaceum. Michx. var. ciliatifolium. Vasey. W. 135	Fields and cult. grounds.	May - June
137	Paspalum difforme. Le Conte. W. 155	Damp field.	June.
138	Melica mutica. Walt. W. 501	Thickets and hummocks.	March - Apr.
139	Panicum dichotomum L. var. commutatum. Schult. W. 455	Hummocks and thickets.	Febr - Apr.
140	Panicum gracile Lam. W. 395	Cultivated ground and fields.	July - Oct.
141	Panicum crus-galli. L. var. hispidum. Wood W. 245	River-swamps.	May
142	Panicum neuranthum. var. ramosum. W. 396	Oak-woods.	July - Oct.
143	Panicum altissimum. W. 373	Meyer. Along thickets. Sparingly scattered over about 3 miles along St. Johns river.	Sept - Oct.
144	Penicillaria spicata. W. 301	Wood. Field. Escaped but not hardy.	Sept.
145	Eragrostis capillaris. L. W. 324	Oak-woods and pine-barrens.	Aug - Oct.
146.	Triensipis setiformis. Michx. W. 322	Thickets. Oakwoods and hummocks near the river.	Sept - Oct.

			Period of flowering.
147	Cenchrus incertus. Chapm. W. 323	Pine-barrens and oak-woods.	Sept - Oct.
148	Setaria glauca. Beauv. W. 187	Cultivated grounds.	June - July
149	Setaria glauca. Beauv. var. laevigatum. Chapm. W. 328	Fields, thickets and hummocks.	July - Oct.
150	Chloris floridana. Chapm. W. 313	Pine-barrens.	Oct.
151	Chloris petraea. Thund. W. 314	Thickets, hummocks and oakwoods near the river.	Oct.
152.	Spartina juncea. W. 488	Mixed. River-marshes	March.
153.	Stenotaphrum Americanum. Chapm. W. 197	River-marshes.	June - July.
154.	Andropogon Elliotii. Chapm. var. gracilis. Hack. W. 364	Pine-barrens and oakwoods.	Oct - Nov.
155	Osmunda cinnamomea. L. W. 387	River-marshes	Oct - Dec.

			Period of flowering.
156.	Osmunda regalis. Mich. W. 475	Swamps.	March - May.
157.	Polypodium incanum. Sh. W. 412	On trunks of dead or living trees in river-marshes, swamps. Thickets, hummocks and oak woods.	Aug - Dec.
158	Woodwardia Virginica. Sm. W. 204.	Swamps and ditches	June - July.

Fredholm.
Washington D. C.
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